



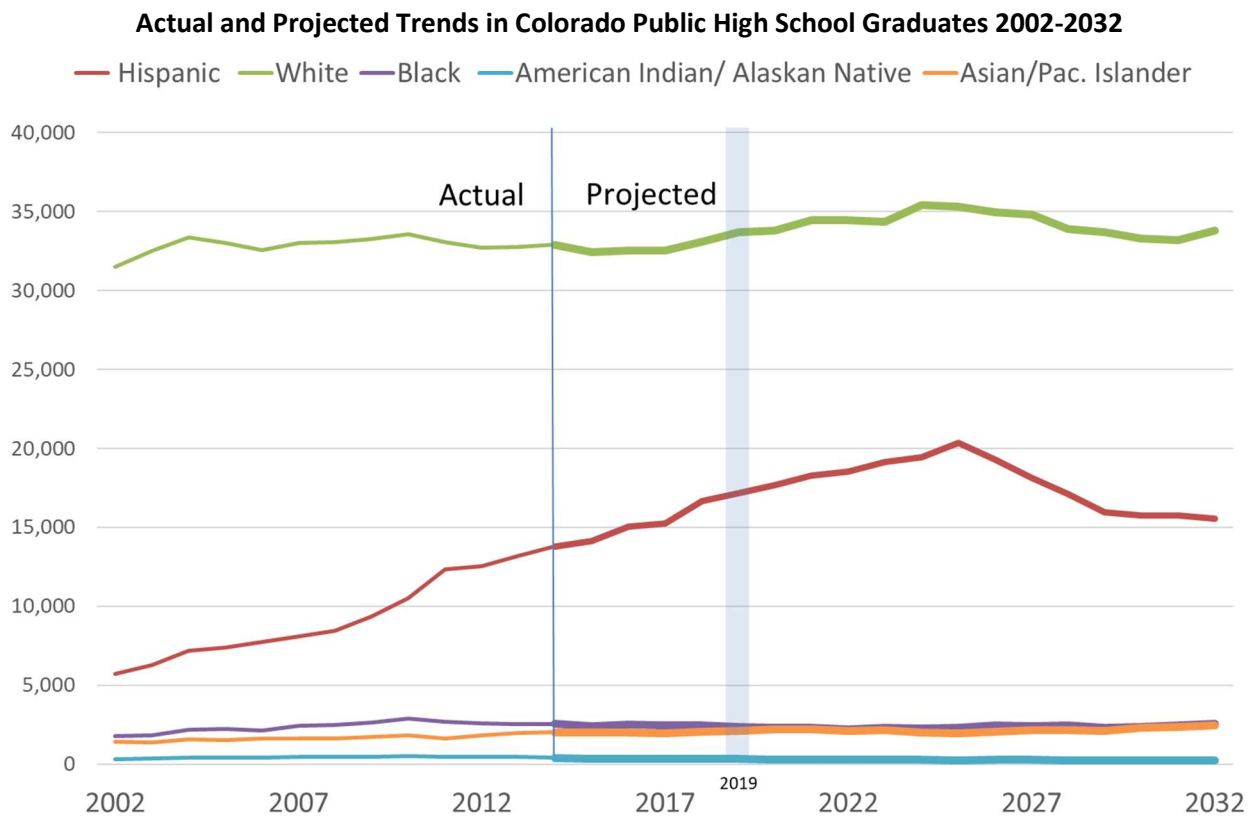
Report to the New Models and Best Practices
Subcommittee of the CCCS Online Working Group
October 2019

By the National Center for Higher Education Management Systems

Introduction

In July 2019, the New Models and Best Practices Subcommittee of the CCCS Online Working Group reached out to NCHEMS to assist them with research and expertise on identification of options for CCCOnline based on examples from other states with community college online educational consortia. The following report describes the background of CCCOnline and the interest by CCCS and the Colorado Community Colleges for exploring other options for the consortium, a description of consortia from four states, and a summary of options for CCCOnline based on lessons learned from these four states and six options for CCCOnline.

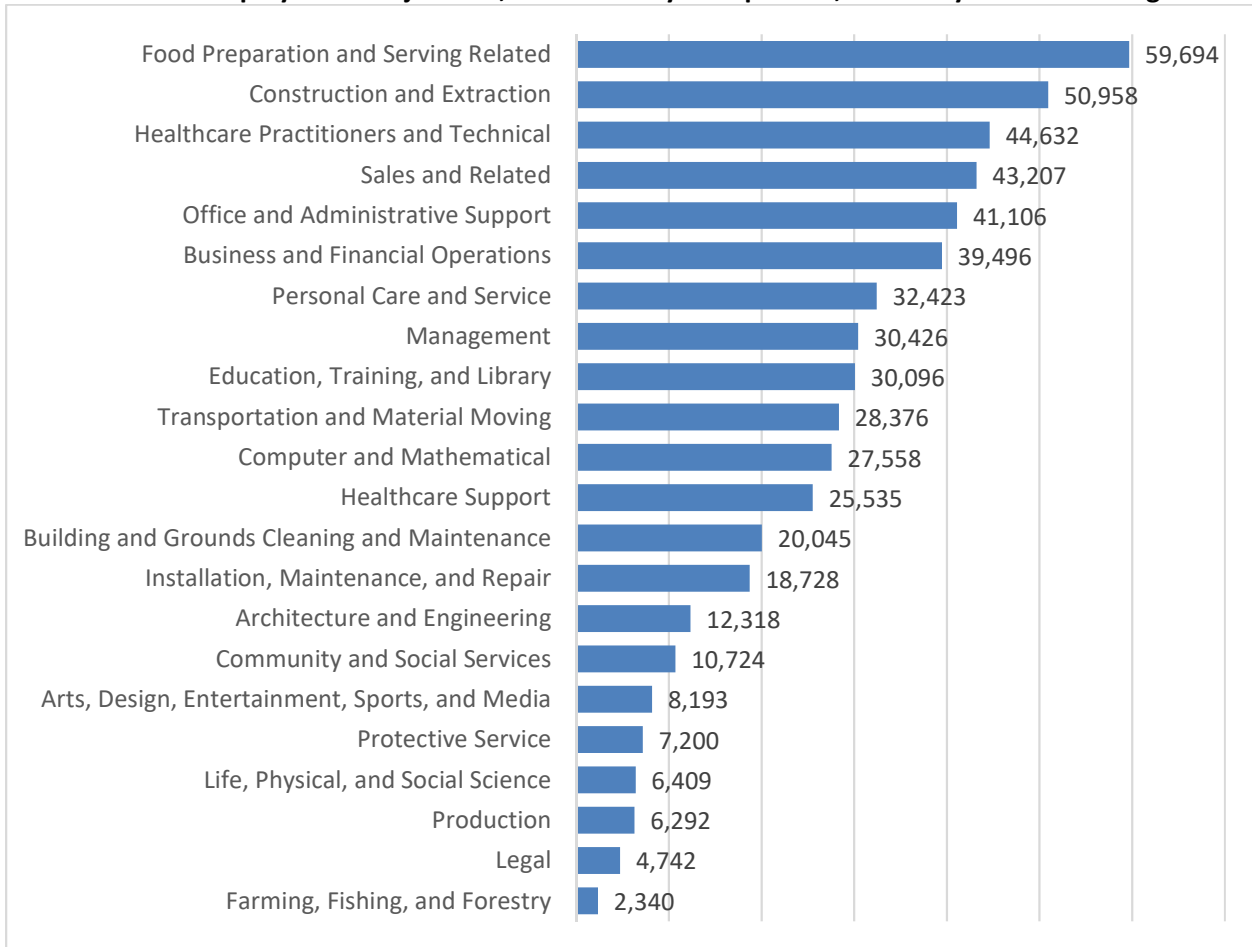
As preliminary context, it is useful to raise the question, where do the community colleges want to be regarding service to Coloradans in five years? In 10 years? Both the demographics and postsecondary requirements for the workforce of Colorado have changed since the community colleges were originally designed. The chart below outlines the demographic shifts.



Source: WICHE Knocking at the College Door, 2017 www.knocking.wiche.edu

In light of the changing ethnicities of traditionally aged students (with different support requirements) and the growing predictions of technology displacing workers in multiple industries, several states are looking at rethinking their higher education structure and goals. Currently NCHEMS has projects in Oregon, Utah, and Wyoming that involve looking 10 years into the future for strategic planning. The chart below indicates the employment fields in Colorado that are predicted to grow over the next 10 years. While these are *statewide* data, individual colleges are in better positions to understand the specific growth patterns in their regions. However, as future goals are developed, curricula and delivery methods should be considered.

Colorado Employment Projections, 2017-2027 by Occupations, Sorted by Greatest Change



Source: Colorado Department of Labor

Online learning trends

All Enrollments and Online Enrollments, 2016 and 2017

	2016	% 2016 Total	2017	% 2017 Total	% Change, 2016-17
Public Institutions					
All Students	14,692,988		14,669,554		-0.16%
Enrolled exclusively online	1,546,287	10.52%	1,657,959	11.30%	7.22%
Enrolled in some online courses	2,830,891	19.27%	3,034,261	20.68%	7.18%
Enrolled in no online courses	10,315,810	70.21%	9,977,334	68.01%	-3.28%
Private Nonprofit Institutions					
All Students	4,095,815		4,123,164		0.67%
Enrolled exclusively online	728,620	17.79%	788,439	19.12%	8.21%
Enrolled in some online courses	368,508	9.00%	392,794	9.53%	6.59%
Enrolled in no online courses	2,998,687	73.21%	2,941,931	71.35%	-1.89%
For-Profit Institutions					
All Students	1,435,266		1,342,441		-6.47%
Enrolled exclusively online	699,929	48.77%	658,481	49.05%	-5.92%
Enrolled in some online courses	126,351	8.80%	125,526	9.35%	-0.65%
Enrolled in no online courses	608,986	42.43%	558,434	41.60%	-8.30%

Source: NCES data published in <https://www.insidehighered.com/digital-learning/article/2018/11/07/new-data-online-enrollments-grow-and-share-overall-enrollment>

Private non-profit, online, adult-serving institutions have seen tremendous growth in high quality programs that relate directly to their needs and are designed to fit into their lives. Western Governors University (WGU) now enrolls over 100,000 full-time students in a flexible, online, learning delivery mode (competency-based education -- CBE). Their completion rates rival public comprehensive universities. Southern New Hampshire University transformed a small, private, campus-based institution into one enrolling over 90,000 students across the country. To better serve adult students, another of the large, online institutions, the public University of Maryland University College is shifting to CBE programs and changing its name to University of Maryland Global Campus. This fall their headcount is over 60,000 students. Headcount for CSU Global, listed in IPEDS for fall 2017, was 17,898.

More recent institutions entering the online space include Purdue Global University and Arkansas eVersity. From recent press reports, neither school has achieved the levels of growth that were predicted. This only shows that growth takes more time than is usually allocated in planning. It took WGU over 6 years to reach a sustainable enrollment.

A very new statewide model is Calbright College. It is the 115th college in the California Community College System and began enrolling students October 1, 2019. It was designed to help under-employed or displaced workers gain the skills and knowledge they need to move into careers that will afford them a living-wage. Their initial offerings revolve around industry-recognized certifications. At the time of this writing, learners will be able to enroll in courses the first of every month and spend six-month terms in flexible courses (CBE). They are seeking accreditation to enable learners' access to financial aid, but knowing that will take several years, the enabling legislation included costs for no-tuition charges.

Background on CCCOnline

In 1995 the State Legislature established Colorado Electronic College. It offered its first online course in 1998 and in 1999 it began operating as CCCOnline. In 2000 HLC authorized Colorado Community Colleges to offer online courses through CCCO. In 2004 Colorado House Bill 04-1086 directed CCCS to centralize the computer infrastructure and student information systems for the 13 community colleges and implement a “common utility infrastructure” for distance education. 2010 brought a more formalized academic structure to CCCO, with associate deans and instructional dean and in 2011 CCCO became a Quality Matters™ organization. In 2014 CCCO introduced its first 6-week course to increase opportunities for CCCS students to reach their educational goals. CCCO was housed under the Information Technology Department of the Colorado Community College System until early September 2019, when it was moved back to the division of Academic and Student Affairs.

CCCO has evolved since its inception and the Colorado Community College System has held conversations about its structure and goals. Currently, all 13 community colleges are members of the consortium. Common course numbering allows for ease of translation of courses across colleges and CCCO. If a course is listed in a college’s catalog and CCCO offers that course, the CCCO version must be listed as an option for students. One exception, being piloted this year, are Early Childhood Education courses at two colleges with program accreditation from the National Association for the Education of Young Children (NAEYC). In addition to the 13 community colleges in Colorado, Dawson Community College in Montana serves over 500 online enrollments annually through CCCO in a partnership that was developed when the former president of Dawson moved from a position in Colorado to the presidency of Dawson.

CCCO has a staff of over 50 individuals working in areas of academic affairs, student affairs, business services, academic technology, instructional design, and other areas. Department chairs, possessing the same credentials as faculty at the colleges, have teaching and academic duties and are responsible for selecting and contracting with adjunct instructors who are contract employees of CCCO and teach the courses.

The revenue for CCCO comes from two sources, the payment by students who enroll in CCCO courses and a \$1.25 per credit fee on all credits that passes from colleges to CCCO to fund academic technology (e.g. the common Learning Management System). 51% of the resident tuition revenue from a CCCO course goes to CCCO and 49% to the student’s home college. Colleges get credit for the FTE whether the students take courses at the home college or CCCO and the colleges keep the Colorado Opportunity Fund (COF) money for the students (\$85 per credit). Tuition costs for the students are the same across the community colleges and CCCO, with online courses listed at \$263.20 per credit (after COF) and face-to-face courses listed at \$148.90 per credit (after COF). As the table, below, shows, online enrollment continues to increase at all the Colorado community colleges despite the price premium for online courses.

FTE Change from Fall 2018 to 2019

College	FTE				Online FTE (subset of Total)			
	2019 FTE	2018 FTE	Diff	% Change	2019 FTE	2018 FTE	Diff	% Change
Urban/Suburban								
Arapahoe	2,570	2,370	200	8%	520	540	-20	-4%
Aurora	2,052	1,924	128	7%	300	275	25	9%
Denver	2,375	2,281	94	4%	424	380	44	12%
Front Range	5,132	5,169	-37	-1%	1,128	1,146	-18	-2%
Pueblo	1,706	1,576	130	8%	332	306	26	9%
Pikes Peak	4,263	4,172	91	2%	1,040	984	56	6%
Red Rocks	2,172	2,298	-127	-6%	383	394	-11	-3%
Subtotal	20,270	19,791	479	2%	4,127	4,025	102	3%
Rural								
CO								
Northwestern	324	356	-31	-9%	37	35	1	4%
Lamar	303	271	32	12%	20	18	2	9%
Morgan	328	326	2	1%	45	44	2	4%
Northeastern	494	530	-37	-7%	44	41	3	7%
Otero	399	435	-37	-8%	45	45	1	2%
Trinidad	544	525	19	4%	69	59	10	17%
Subtotal	2,392	2,443	-51	-2%	260	242	18	7%
Total	22,662	22,234	428	2%	4,387	4,267	120	3%

Source: CCCS internal FTE and Headcount Report; Current Date: 10.2.19, Previous Year Date: 10.3.18

*Notes: Includes residents, non-residents, assets, needs review, and undeclared; Online FTE includes both CCCO and college-offered online.

Campus Percentage Share of Online FTE per College

Institution	Online Type	2019	2019 %	2018	2018 %
Urban/Suburban					
Arapahoe	CCCO	261.83	50%	284.27	53%
	College	258.13	50%	255.87	47%
Aurora	CCCO	277.43	93%	249.73	91%
	College	22.37	7%	25.1	9%
Denver	CCCO	259.7	61%	237.47	63%
	College	164.03	39%	142.47	37%
Front Range	CCCO	498.87	44%	570.73	50%
	College	629.4	56%	575.53	50%
Pueblo	CCCO	124	37%	139.33	46%
	College	207.77	63%	166.18	54%
Pikes Peak	CCCO	516.53	50%	498.37	51%
	College	523.43	50%	485.9	49%
Red Rocks	CCCO	244.27	64%	242.9	62%
	College	139.13	36%	151.53	38%
Rural					
CO Northwestern	CCCO	33.47	91%	30.37	86%
	College	3.3	9%	5.03	14%
Lamar	CCCO	19.6	100%	17.97	100%
	College	0	0%	0	0%
Morgan	CCCO	39.4	87%	38.3	88%
	College	5.9	13%	5.43	12%
Northeastern	CCCO	43.73	100%	40.73	100%
	College	0.1	0%	0.2	0%
Otero	CCCO	22.07	49%	22.07	49%
	College	23.27	51%	22.57	51%
Trinidad	CCCO	40.93	59%	30.67	52%
	College	28.02	41%	28.42	48%

Source: CCCS internal FTE and Headcount Report, 10.2.19

Course Completion Percentage AY 2018

	Campus		Campus_Online		Campus_CCCO		Overall_CCCO	
	Attempted	Pass	Attempted	Pass	Attempted	Pass	Attempted	Pass
							49,876	69%
Urban/Suburban								
Arapahoe	21,710	82%	4,435	76%	6,262	74%		
Aurora	24,051	80%	469	72%	5,670	68%		
Denver	28,044	71%	2,730	70%	5,445	64%		
Front Range	52,885	77%	11,264	72%	10,919	71%		
Pueblo	13,824	79%	2,472	73%	2,872	67%		
Pikes Peak	36,689	74%	8,365	72%	9,671	70%		
Red Rocks	18,018	76%	2,583	72%	5,193	70%		
Rural								
CO Northwestern	3,148	85%	49	82%	657	72%		
Lamar	2,892	82%			470	60%		
Morgan	3,691	89%	206	86%	857	73%		
Northeastern	5,409	78%	14	57%	714	69%		
Otero	4,712	79%	299	72%	610	61%		
Trinidad	4,867	86%	479	83%	536	65%		

Source: Internal CCCS data file: Online AY 2016-18 Student Success Comparisons

The current structure has created some challenges for CCCO and the Colorado Community Colleges. One challenge is that, while created to serve as a consortium to enhance online education, CCCO is viewed by some colleges as competition for online course enrollment. When sections of the same course are offered by both CCCO and a campus, the sections do not always fill to an acceptable level and can force sections to close and instructors scheduled to teach those sections to reduce their teaching load. This has a financial impact on the instructors and the campus. Another challenge involves regional and professional accreditors questioning the efficacy of the CCCO model. Rather than a true consortium, the Higher Learning Commission (HLC) is questioning whether CCCO is operating as an Online Program Manager (OPM). HLC has changed its definition of consortium and CCCO does not fit neatly into the category of consortium or a shared service. Both HLC and professional accreditors, such as the accreditor for the Early Childhood Education programs offered by some Colorado community colleges, may be concerned with the fact that CCCO courses are taught by instructors not affiliated with the colleges. Professional accreditors demand that faculty of a program must have full control of the curriculum and assessment of their programs and, when courses are taught by unaffiliated instructors as the CCCO courses are, accreditors may express concern for the overall quality of the program and student experience.

In general, a focus on students' access and success should be paramount to any decisions about structure and functions for online learning.

- Students taking courses online pay 77% more per credit than students taking courses on campus.
- Students in online courses taught by the campuses are a little less likely to complete compared to students taking face-to-face courses on campus
- Students taking courses online through CCCO are a little less likely to complete compared to students taking online courses taught by the campuses.

- Even though Coloradans are seeking more flexible options, CCCS is asking students to pay more for the delivery modes many need.
- As the figure below indicates, employment projections for Colorado show increased need in the areas of food and serving, construction and extraction, healthcare, sales, administrative support, and business and financial operations, meaning Coloradans will be seeking training to help them enter or move up in these and other fields of high need in their region.

Models of consortia from four states

The four examples reviewed during this project were the Florida Virtual Campus, MarylandOnline, Washington Online, and the California Virtual Campus - Online Education Initiative. A brief description of each is presented in this section. The first three are examples of statewide consortia that developed about the same time as CCCOnline. The fourth is a more modern version of a statewide consortium that was developed after the individual colleges were already offering online courses and programs.

Florida Virtual Campus (FVC)

The FVC was created in 1998 when four entities were merged into one: the Florida Distance Learning Consortium, FATS (centralized advising), the College Center for Library Automation (2-year online library resources), and the College Center for Library Automation (4-year online library resources). FVC aggregates and presents a catalog of all distance learning in postsecondary education in the state. It also coordinates an instructional designer network to connect institutional instructional designers and provide professional development opportunities. FVC also runs the automated transient student system, which was requested by the institutions themselves and is required by legislative statute. This system allows a student who is enrolled as an undergraduate at a public institution in Florida to apply to take an online course at another institution. The process of enrolling, using financial aid to pay for the course, and sending the transcript back to the home institution upon completion are all automated within this system. FVC's role is to facilitate the online courses throughout the state of Florida, with courses taught by institutions themselves. In addition to providing resources for the institutions, FVC facilitates the process for students to find, enroll in, and take online courses from their own institution or others offering the courses they need.

MarylandOnline (MOL)

MOL came into being in 1999 among 12 charter members to build a consortium among public colleges in Maryland offering online education. MOL now includes 20 institutions: all 16 community colleges in the state, 3 public 4-year institutions, and 1 private not-for-profit institution. Early concepts for MOL involved the consortium providing course delivery or MOL coordinating a central registration system for online education in the state, but neither of these came to pass. The current structure of MOL is a fee for service model where members pay an annual fee of \$5,500 per institution (supplemented by revenue from the licensing of intellectual property of Quality Matters, which was created by MOL through grant funding, and whose intellectual property MOL still has some ownership of). MOL then provides member institutions with a seat bank that allows members to share seats in courses, with MOL coordinating the money transfer from home institution to teaching institution, reconciled annually. MOL also coordinates a searchable database of best practices in online education from the practitioner perspective, provides free professional development via webinars and workshops, and produces an annual subsidized leadership institute, targeted at emerging leaders in online education.

Washington Online (WAOL)

WAOL began in 1997 with all 34 community colleges in the state participating in a consortium designed as a community of practice for online education and a way to balance institutions that were more and less resourced in capacity to offer online education. It was originally formed at Spokane Falls Community College and moved to the state board in 2000. Participation was voluntary and the board handled pooled enrollment, billing, and reimbursement through a homegrown student information system. WAOL also charged the teaching colleges a per student per quarter technology fee to cover some of their costs to run the consortium. Courses could be created with assistance and funding from WAOL or individually by institutions, but all courses were taught by instructors hired and paid by an institution. Some institutions participated in the consortium as teaching colleges, but not home colleges, working against the cooperative nature of WAOL. Over time individual institutions in Washington developed their own capacity for offering online courses and the decision was made to sunset WAOL, except for a collaborative early childhood education program that is a consortium among 5 colleges and enrolls about 350 students. The services that the board now provides related to online education at community colleges in the state are the centralized purchase and maintenance of a shared LMS platform for all 34 colleges to use for their own online course offerings.

California Virtual Campus – Online Education Initiative (CVC-OEI)

The CVC-OEI was created in 2013 to respond to the increasing enrollments in the California Community Colleges, particularly in online education and to alleviate accreditor concerns about equitable online services. The California Legislature appropriated \$56.9 million for 5 years to build efficiency in online offerings across the community college system. Institutions interested in joining the consortium completed a self-assessment and, based on results, 23 pilot institutions were invited to participate. California has 114 campus-based community colleges plus the new online college, Calbright, designed to serve displaced and underemployed workers. Legislative appropriations have continued, and the consortium includes 57 members and is growing. The CVC-OEI includes the CVC-Exchange, an online course aggregator with a student portal that allows students enrolled in institutions in California to view and access online courses offered at member institutions. Within the state funding formula for California Community Colleges, teaching colleges in the exchange receive points for enrolling online students through the exchange and home colleges receive completion points as their students are more likely to complete in a timely manner when they have access to courses they need at the time they need them. Financial Aid for exchange courses is disbursed by the home institution and local fees are waived for students taking courses within the exchange. CVC-OEI manages a central contract with an LMS provider for all California Community Colleges and centralizes ecosystem tools that pair with the LMS (e.g. online counseling, proctoring services, tutoring, student readiness resources, and student engagement tools). The costs for these tools are completely covered for the 57 member institutions and non-members can take advantage of discounts negotiated by CVC-OEI.

The four state examples reviewed for this project all have different ways of engaging in their online consortia. Common goals across the examples include increased innovation and access to online education and enhanced collaboration among community colleges and between the community colleges and a central entity (system, board, etc.). These goals match those expressed by the Colorado Community College System for their online education offerings. Reviewing and adapting aspects that work in these other states in the form of one or more of the options outlined below may be useful for Coloradans' access to and success with online courses/programs into the future.

Findings and options

It appears that CCCOnline has migrated from being a consortium in service to the colleges into an online service provider competing for the same students that would also be served by the colleges. This has given rise to accreditation concerns for both Colorado's regional accreditor and for professional accreditors.

CCCOonline emerged, as did most of the other community college consortia reviewed in this report, when online education was a small but promising part of a students' options for education. Nationally most college students take at least one online course while earning their degree.

While the reasons for this current state are numerous, there are several options for the Colorado Community College System to consider going forward. All these options involve making some strategic decisions about the future of online education in Colorado.

1. **Exclusive Rural focus:** CCCOnline focuses its efforts on facilitating online education at the rural Colorado community colleges. The rural colleges would be the primary link with students (either face-to-face or electronically) to provide support that enables better success rates. In this option, the local colleges would be responsible for needs analysis related to either transfer degrees or certifications required by local employers. CCCOnline would assist these colleges with course development and resources, such as open education resources (OER). Colorado community colleges that already have a robust online program will continue offering courses to their own students.

Issues to consider:

- Focuses CCCS online efforts on the needs of rural Coloradans as suburban/urban community colleges have more capacity to provide their own online education.
- Removes CCCO from instruction role that is of concern to accreditors.
- Income from CCCO courses would not be available to CCCS so funding models would need to shift to accommodate this new priority for the CCCO staff.
- Small enrollments in rural colleges may lead to challenges in funding and offering a robust set of courses.

2. **Master catalog/aggregator:** CCCOnline develops and updates an aggregated master catalog of online courses offered by all Colorado Community Colleges. In this role, CCCO smooths out the student experience by coordinating enrollment in online courses offered by community colleges that are not the student's home college. CCCO also serves the business and operations function of transferring funds from the home to the teaching colleges based on student enrollment patterns in online courses.

Issues to consider:

- Focuses resources on improving access to online education to all Colorado Community College students and removes barriers from their enrollment experience.
- Community colleges would compete for online students and could coordinate offerings to ensure student needs are met, providing opportunities to coordinate efforts to offer low-enrollment courses collaboratively.
- Removes CCCO from instruction role that is of concern to accreditors.
- Income from CCCO courses would not be available to CCCS so funding models would need to shift to accommodate this new priority for the CCCO staff, some of whom may shift to working directly at a campus.

3. **Facilitator:** CCCOnline serves as a facilitator for local colleges to offer their own online programs. This could include: support for technological infrastructure; course seat bank coordination function; curation of learning resources used by faculty employed by the colleges to teach online courses; repository of courseware used in all courses with common numbering; development and coordination of training for college faculty managing and supporting online education; development and coordination of training for campus-based instructional designers.

Issues to consider:

- Income from CCCO courses would not be available to CCCS so funding models would need to shift to accommodate this new priority for the CCCO staff, some of whom may shift to working directly at a campus.
- Removes CCCO from instruction role that is of concern to accreditors.
- Requires strong collaboration among community colleges and with the CCCS.

4. **Innovation center:** CCCOnline takes on the strategic role of exploring innovative practices like offering competency-based courses online and more flexible learning opportunities geared toward working adults. The courses would be designed, and the assessments produced, by campus-based faculty working with CCCOnline instructional designers and assessment specialists. It could also serve as the source of *coaching faculty* to help students succeed as they work at a flexible pace through the courses.

Issues to consider:

- Income from CCCO courses would not be available to CCCS so funding models would need to shift to accommodate this new priority for the CCCO staff, some of whom may shift to working directly at a campus.
- Removes CCCO from instruction role that is of concern to accreditors.
- Requires strong collaboration among community colleges and with the CCCS, particularly in identifying and pursuing new and innovative online education offerings.
- Sets CCCS up for national leadership in innovative practices and provides access to Coloradans across the state to these new opportunities.

5. **Independent accreditation:** CCCOnline can continue in its current mode but seek independent accreditation and offer its own degrees.

Issues to consider:

- Retains income for CCCO from course tuition while adding a level of competition between CCCO and the campuses that offer online courses.
- CCCOnline would become the 14th Colorado Community College. There are financial and other costs associated with independent accreditation.
- Student access to courses must be considered when determining how they would access CCCO courses and complete degrees online if CCCO has the ability to serve as a student's home college.

6. **Sunset:** CCCOnline can be sunsetted with online education offered through the individual community colleges that open their courses to rural learners.

Issues to consider:

- Removes need for the 50+ staff and faculty who are currently employed by CCCO. Some individuals could move to positions within the campuses as, presumably, some campuses would increase their online course offerings as a result.
- There are organizational and economic efficiencies associated with coordinated online education efforts that would be reduced as a result of sunseting CCCO entirely.

- Campuses with robust online education offerings can continue to expand while those with small to no online education capacity may be negatively impacted by the closure of CCCO.
- Removes CCCO from instruction role that is of concern to accreditors.

Final thoughts

Regardless of decisions about CCCOnline, the colleges are usually best informed regarding the needs of their local population. The reality in any system organizational structure should be predicated on the best service to students in Colorado.

Prior to any decision, the New Models and Best Practices Subcommittee of the CCCS online Working Group suggests the following questions be considered:

- Based on your experience and understanding of the current and future state of online learning, what critical principles should guide our development of a future vision (five-year) for online learning for CCCS?
- Considering the data from Colorado employment projections, 2017-2027 by occupation, how can CCCS position itself to be a leader in providing the best service to online students in Colorado? Where are the opportunities to develop business/industry partnerships, as a potential for cost-of-acquisition savings and to reduce overall cost for students taking these online classes?
- As a system, how do we support the continued growth and development of our colleges' online programs while leveraging the infrastructure of CCCO to expand our range of opportunities that are available to our students?
- What are the trends in online enrollments nationally? Can these enrollments be separated by students who use online courses to supplement classroom-based programs from students intending to complete wholly online programs?
- What are the student success rates for online programs as compared to online classes? Are students completing online programs?
- How could CCCO's infrastructure and ability to deliver high-quality, rigorous, online learning at scale, be leveraged to position CCCS and the colleges to meet the realities of increased competition from large-scale, centralized enterprise providers of online learning (like CSUG, WGU, SNHU, etc.), increased market pressure to reduce expenses and cost, and the declining number of traditional-aged students? What does this competition do better than CCCS and what could CCCS do better than them regarding online services (e.g. academic program and course design; student support services) for students in the state of Colorado? Which students can CCCS serve better than national online providers?

For questions, please contact:

Sally Johnstone, PhD

Email: sally@nchems.org | Phone: 303.497.0394

Gina Johnson, PhD

Email: gina@nchems.org | Phone: 303.497.0307

The National Center for Higher Education Management Systems (NCHEMS) is a nonprofit research and consulting organization founded in 1969 whose mission is to improve the management and effectiveness of higher education institutions, systems, and state agencies. In its more than fifty years of history, NCHEMS has successfully completed projects in costs and finance, governance, mission review, organizational/institutional effectiveness, assessment and student outcomes. The Center is located in Boulder, Colorado, and has a staff of fifteen researchers and support staff.